

## **Bio-Data**

1. **Name:** *Dr. VM Pandharipande*
2. **Date of Birth:** *28<sup>th</sup> March, 1949*
3. **Designation:** *Vice-Chancellor  
Dr. Babasaheb Ambedkar Marathwada University Aurangabad  
Phone No. 0240-2403111 Email : vc@bamu.net*

4. **Qualifications:**

Degree	University	Year of award
B.E.	Nagpur Univ.	1970
M.Tech.	IIT, Kharagpur	1972
Ph.D	IIT, Kharagpur	1979

5. **Professional Experience:**

Organisation	Designation	Period
T.I.F.R., Bombay	Scientific Officer	1972- 1974
Radar & Communication Centre, IIT, Kharagpur	Lecturer	1974-1979
	Sr. Scientific Officer	1979-1980
	Asst. Professor	1980-1983
Osmania University	Professor	1983-2009
	Professor & Head	1985-1987
		1990-1991
	Chairman, BOS	1987-1989
		1990-1991
		1997-1999
	Coordinator Project IMPACT	1990-1991 1993-1996
VNIT Nagpur	Director Curriculum Development and Accreditation Audit cell, College of Engineering, Osmania University	1996- 1999 2003-2005
	Dean Faculty of Engg. Professor..Emeritus	1999-2001 since 2009
	Director	2002-2003
Centre for Excellence in Microwave Engineering	Director	2006 -2010
Department of Electronics & Communication Engineering Osmania University, Hyderabad	Professor Emeritus	2009-2010 (Till 4/1/2011)
Dr. Babasaheb Ambedkar Marathwada University Aurangabad.	Vice-Chancellor	Since 5 <sup>th</sup> Jan 2011

**6. Titles of the subjects taught:**

- a) At U.G. level: *Network Theory, Basic Circuit Analysis, Transmission Lines*  
b) At P.G. level: *Passive Network Synthesis, Selected Topics in Microwaves, Microwave Techniques, Phased Array Radar, Microwave Circuits*

**7. Laboratory Development:**

- a) At U.G.level: *Networks Lab, Microwave Lab, PCB Lab*  
b) At P.G.level: *Microwave Research Lab*

**8. List of Publications: No.**

*Papers published in National Journals 18*

*Papers published in International Journals 26*

*Papers published in National Conference Proceedings 62*

*Papers published in International Conference Proceedings 39*

*Total No. of papers published 145*

*Books Published (on Literature) 16*

*Technical Reports 33*

**(Please see sheets attached)**

**9. M.Tech Thesis Supervised 66**

**(Please see sheets attached)**

**10. Ph.D. Thesis Supervised 11**

**(Please see sheets attached)**

**11. Research Projects completed: 12**

**(Please see sheets attached)**

**12. Courses organized and coordinated: 17**

**(Please see sheets attached)**

**13. Workshops and invited talks : 28**

**(Please see sheets attached)**

**14. Consultancy Projects completed: 4**

<b>Title of the Project</b>	<b>Sponsoring Authority</b>	<b>Funds Received</b>	<b>Duration</b>	<b>Year of Completion</b>
Wave guide slotted Array for Side Looking Radar	SAC ISRO	0.25 <i>lakhs</i>	1987-89	1989

**15. Curriculum Development:**

<i>Chairman Board of studies</i>	1987-90
<i>Chairman Board of studies (Auto)- Responsible for Revision of Complete syllabus of BE ECE(Auto)</i>	1996-99
<i>Director, Curriculum Dev. Acc. Audit Cell – Responsible for Academic Audit, Accreditation process, Managerial Rep.</i>	1996-99 2003- 05
Expert Team member for Evaluation of Engineering Curriculum For Defence College Ministry of National Defence, Ethiopia,	June 1997

**16. Member of National level Bodies/Committees:**

Member Recruitment and assessment board DRDO since 1983
<i>Member National Radar Council</i>
<i>Member National Board of Accreditation, AICTE, Min.of I.T.(DoE)</i>
Member AICTE – UGC committee for Deemed University status.
<i>Member U P S C Selection</i>
<i>Member 8 Projects of Rev. Committee of DRDO</i>
<i>Member Expert Committee, Dept. of Science and Industrial Research,(DST)</i>

**17. Contribution to Human Resource Development:**

<i>Organized several Short Term Courses and Workshops (Please see sheets attached)</i>
<i>Extensive contribution to Continuing Engg. Education in Microwave Engg.</i>
<i>Teaching Learning process and Improvement of Teaching Quality</i>

**18. Administration:**

**a) Contribution to College Administration:**

- *Chairman BOS, ECE.*
- *Director CDAAC.*

- *Member Finance Committee.*
- *Library Committee.*

**b) Contribution to University Administration:**

- *Dean, Faculty of Engg.*
- *Member Governing Body of Affiliated Colleges.*
- *Member Governing Body University College of Engineering, Osmania University since 1995.*
- *Member Academic Senate Osmania University*
- *Member Academic Senate Cochin Institute of Science and Technology*
- *Member Academic Senate VNIT Nagpur*
- *Member of Inspection Committees.*

**19. Fellowship & Awards:**

1. *Distinguished Leadership Award by American International Biographical Instt., Inc., USA, 1999.*
2. *Fellow of Institution of Electronics & Telecommunication Engineers.*
3. *Fellow of AP Academic of Sciences*
4. *Life Member of Indian Society of Technical Education.*
5. *Man of the Year Award by American International Biographical Instt. Inc., USA, 1999.*
6. *Guest Editor of Special Issue on Microwave Commn. System I E T E Tech. Review.*
7. *Guest Editor of IETE Special issue of Electronics Engineering Education 2020.*
8. *Best Teacher Award from Govt. of Andhra Pradesh, 2001.*
9. *Prof. K.Sreenivasan Memorial Award of Institution of Electronics & Telecommunication Engineers, 2002.*
10. *Best Teacher Award ,from Faculty of Engineering, Osmania University. 2002*
11. *Bharath Ratna Sir Vishveshvaraiah Award from Institution of Engineers and Govt. of Andhra Pradesh, Hyderabad, 2002.*
12. *21<sup>st</sup> Century award for achievement and International Educator of the year 2007 from International Biographical Centre, Cambridge, England.*
13. *Shiksha Ratna Puraskar from India International Friendship Society, New Delhi, 2007.*
14. *Guest Editor IETE Journal of Research Special Issue on Microwave Circuit and Systems – 2008.*

15. Prof. SVC Aiya Memorial Award, IETE, New Delhi – 2008
16. ISTE New Delhi, Anna University National Award for Outstanding Academic 2008
17. Inspiring Teacher Award from Teachers Academi Hyderabad Given by Alumni 1988 Batch on Teacher's Day 2009

## **20. Major Achievements:**

*Successfully completed sponsored Research Projects funded by DRDO Ministry of Defence, Dept of Electronics, Govt. of India (Min. of I.T), C.S.I.R., Indian Space Research Organization, Min. of H.R.D. and A.I.C.T.E. (Total Project Cost ~100 lakhs)*

*Coordinated & Executed Electronics Industry Development Project IMPACT funded by World Bank, Swiss Development Cooperation (90-96) (Project cost ~ 150 lakhs.) Computer Lab., Major Communication Equipment installed & commissioned. Ours was one of the best participation institution & awarded incentive grant of 7.5 lakhs. Was one of the core member to formulate the Draft proposal for the project NETWORK which is now funded to Dept. of ECE,OU by Swiss Development Cooperation (Project cost Rs.40 lakhs).*

*Organized several short Term Courses for Scientists & Engineers of Industries, R&D labs in the area of Microwave Engineering & Contributed to Human Resource Development in this field.*

*Organized several Object Oriented workshops for faculty members of Electronics Stream and contributed to the improvement of teaching learning process.*

*Produced Learning material for 2 PG courses & 2 UG courses (Specific Units).*

*Contributed as an expert member at state and National level: APPSC, UPSC, National Radar Council working group, National Board of Accreditation (AICTE), Dept. of Science & Ind. Research, Dept. of Tech. Education (AP) etc.*

*Distinguished Leadership Award (1999) from American international Biographical Instt., Inc., USA.*

*Established the Centre of Excellence in Microwave Engineering with funding from Astra Microwave Products Limited.*

*Chairman, Technical Committee International Conference on Recent Advances in Communication Engineering, December 2008, ECE, OU.*

## **RESEARCH PUBLICATIONS OF PROF. V.M. PANDHARIPANDE**

Year	Journal Papers		Conference Proceedings Papers	
	International	National	International	National
1974	-	1	-	-
1976	-	-	-	1
1977	1	-	-	-
1978	1	-	-	-
1979	2	-	-	-
1980	-	-	-	1
1981	-	-	2	-
1983	2	1	-	2
1984	1	-	-	4
1985	-	2	-	3
1986	-	-	2	1
1987	1	-	-	-
1988	2	-	1	2
1989	-	2	2	2
1990	1	1	2	1
1991	1	-	1	-
1992	1	1	2	-
1993	1	-	2	2
1994	1	-	-	3
1995	-	-	-	2
1996	-	1	-	-
1997	-	1	-	-
1998	-	-	-	2
1999	-	-	-	8
2000	-	-	-	3
2001	-	1	-	1
2002	-	-	-	1
2003	3	1	4	1
2004	3	-	4	4
2005	-	2	2	6
2006	1	-	3	3
2007	1	-	5	-
2008	2	2	3	7
2009	-	2	1	-
2010	1	-	4	1
	<b>26</b>	<b>18</b>	<b>39</b>	<b>62</b>

### **List of publications**

1. 'Radiation pattern of an inclined shunt slot in the narrow wall of a rectangular waveguide', IETE Jour. Vol.20, No.7, IETE pp.327-330. July 1974.
2. 'Coupling of Waveguides through large apertures in the common broad wall', presented at the Mid Term Symposium on Electromagnetic including Microwaves, Antennas and Wave Propagation , Calcutta Centre of IETE during April 10-11 ,1976.

3. 'Equivalent Network of a variable height post in a rectangular waveguide', Proc. IEEE , Vol.124, No.12, Dec. 1977, pp. 1160-1162.
4. 'Coupling of waveguides through large apertures', IEEE Trans. on Microwave Theory & Tech., Vol.MTT-26, No.3, March 1978, pp.209-212.
5. 'Slot Coupled Tee Junction in rectangular Guide E plane', IEEE Trans. on Microwave Theory & Tech., Vol.MTT-27, No.1, Jan. 1979, pp.209-212.
6. 'Equivalent Circuit of Narrow Wall Waveguide Slot Couplers', IEEE Trans. on Microwave Theory & Tech., Vol.MTT-27, Sept. 1979, pp.800-804.
7. 'Long Shunt Slot Waveguide Coupler', presented at the Technical Session of Advances in Microwave Circuits, Organised by IEEE India Council , Oct.30, 1980, New Delhi.
8. 'Applications of Equivalent Circuit Approach for Waveguide Coupling Problems', International Symposium on Microwaves and Commn., IIT, Kharagpur, Dec. 29-30, 1981, pp.201-205.
9. 'Analysis and Design of Millimeter Wave Edge Slot Array with optimum efficiency', International Conference on Circuits and Systems , Jadavpur University, Calcutta, India, Dec. 26-28, 1981.
10. 'Triplate feed for microstrip Arrays', Proceedings of Third International Conference on Antennas and Propagation- ICAP -83, University of East Anglia , Norwich, UK, IEE Conf. Publ. No.219, Pt 1, pp.309-312.
11. 'Electromagnetic Coupling between transmission lines through apertures', (Review paper) Jour. Institution of Electronics and Telecommunication Engg., India, Vol.29, No.2, Feb. 1983, Pt 1, pp.309-312.
12. 'Wide band micro strip patch array at X-band', 26<sup>th</sup> Technical Convention of the Institution of Electronics and Telecommunication Engineers, Feb. 12-14, 1983, Hyderabad,. Jour. IETE, Vol.29, No.10, 1983, pp.497-500.
13. 'The Design of Iris feed for broad band Microstrip Antenna', IETE Symposium on Microwave Communication, Calcutta Centre IETE, April 8-9, 1983.
14. 'Matched Directional Coupler design using filter approach', International Radar Symposium, Oct. 9-12, 1983, Bangalore, India.
15. 'Excitation of planar slot array from rectangular waveguide', IEE Proc. Pt II, Microwaves, Optics and Antennas, Vol.131, No.2, April 1984, pp.99-101.
16. 'Inclined Slot Coupling through common broad wall between Waveguides', Proc. National Symp. on Microwave Commn. Systems, IIT, Madras, Dec. 6-7, 1984, Proc., pp.198-206.
17. 'Equipotential and flux lines in a symmetric rectangular coax line', Proc. Microwave Integrated Circuits , Communication and Signal Processing , Dept. of ECE, O.U., Hyderabad, Dec. 17-18, 1984, pp.B-24 – B-29, Jour. IETE, Vol.32, No.1, pp.41-43.

18. 'Coupling between asymmetric microstrip lines through apertures', Proc. Microwave Integrated Circuits, Communication and Signal Processing, Dept. of ECE, O.U., Hyderabad, Dec. 17-18, 1984, pp.D-1 – D-13, Jour. IETE.
19. 'Analysis and Design of IF Filter for Airborne receiver', Proc. Microwave Integrated Circuits, Communication and Signal Processing, Dept. of ECE, O.U., Hyderabad, Dec. 17-18, 1984, pp.C-28 – C-32, Jour. IETE.
20. 'Millimeter wave transmission media for Communication Systems', Review Paper, National Symposium on Communication Systems and Technologies of the Future, DEAL Dehradun, March 14-15, 1985.
21. 'Time Reference Scanned Beam Array Synthesis & Design for MLS Applications', Symposium on Navigational Electronics, IETE Calcutta Centre, June 6-7, 1985.
22. 'Ku-Band Edge Slot Array with optimum efficiency for frequency scanning applications', Jour. IETE, July, 1985.
23. 'Analysis of a TEM cell, used as a probe for EMI/EMC Measurement', All India Conference on Electromagnetic Compatibility, LRDE, Bangalore, Nov. 25-26, 1985.
24. 'Low Loss PIN diode Phase Shifter for an Active Array Element', IETE Tech. Review Vol.2, No.11, 1985, pp.385-388.
25. 'Pattern shaping for MLS Antenna Arrays', paper presented at 29<sup>th</sup> Technical Convention of IETE, Feb. 15-16, 1986, New Delhi.
26. 'Pattern shaping with Microstrip arrays, for MLS applications', CIE, 1986, International Conference on Radar, Nov. 4-6, 1986, China.
27. 'Coupling between microstrip lines through long transverse slots', Microwave Technology and Applications, Proc. of 1<sup>st</sup> Asia Pacific Microwave Conference, Feb.24-28, 1986. pp.195-200.
28. 'Linear Model for high frequency transistors for different bias', IEEE Jour. of Solid State Circuits, Vol.SC-22, No.6, Dec. 1987, pp.1212-1214.
29. 'Extraction of GaAs FET chip Equivalent Circuit parameters from S-parameters', The second ISRAEL IEEE Symp. on Circuits, Systems and Control (ISCSE'88), May 30- June 1, 1988.
30. 'Computer Aided Modelling of discrete high frequency transistors', IEE Proc. Pt.H MOA. Vol.135, No.3, June 88, pp.171-179.
31. 'Microstrip to waveguide large aperture coupler', Electronics Letters UK, Vol. 24, No. 15, July 1988, pp. 913-914.
32. 'Cost Minimization of Phased Arrays using special Coupling Networks', Symposium Digest Skywave DTE Radar concepts and Techniques, LRDE, Bangalore, Oct.11-12, 1988, pp.107-110.



33. 'Designing MLS Arrays with specified Individual Side Lobes', National Seminar on Electromagnetics and their applications, Dec. 22-23, 1988, BHU , Varanasi, Publ. in IETE Technical Review, Vol.6, 1989, pp.471-475.
34. 'Analysis of characteristics of Electrically small sources inside a TEM cell with offset septum', Proc. of International Conference on Electromagnetic Interference and Compatibility, Sept. 14-16, 1989.
35. 'A Gaussian Antenna Correlator for Non-sinusoidal waves', Proc. of International Conference on Electromagnetic Interference and Compatibility, Sept.14-16,1989.
36. 'Teaching Electronics & Communication Engineering Courses at U.G. level, Need for a change', National Seminar on Electronics Education and Industrial Growth University of Roorkee, Sept.21-22,1989.
37. 'Shaped Beam Synthesis for a Phased Array', Electro Technology, Sept-Dec.1989, pp.81-88.
38. 'Franklin Type Travelling Wave Microstrip Antenna', National Conference on Electronic Circuits and Systems, University of Roorkee, Nov.2-4, 1989.
39. 'Design of Antenna Arrays in the nonscanned plane of azimuth and elevation antennas for MLS', National Symposium on Emerging Trends in Communication Technology , University of Jodhpur, March 16-17,1990.
40. 'Stripline to Microstrip line Aperture Coupler', IEEE Trans. on Microwave Theory & Tech. Vol.38, No.4, April 1990, pp.440-443.
41. 'Futuristic Navigational Aid , Microwave Landing System', Telematics, Vol.III, No.7,April ,1990, pp. 70-76.
42. 'Phased Array Synthesis using nonlinear phase distribution', RADARCON, Australia, April, 1990.
43. 'Nulling Techniques to Improve Shaped beams in Array Antennas', JINA , 1990. International Symposium on Antennas, France, Nov., 1990.
44. 'Equivalent Network for an Aperture in the centre conductor of Microstrip line', IEEE Trans. on Microwave Theory & Tech. 1991, Vol.39, No.1 ,pp.149-151.
45. 'An efficient Technique to Synthesize Shaped Beam Antenna Patterns' , Chinese Instt. of Electronics , CIE Int. Conf. on Radar, Oct.22-24, 1991, Beijing, China.
46. 'Gaussian Phase Function for Phased Array Beam Shaping', IEEE Trans. A & P Symp. Digest 1992, pp.441-445.
47. 'A new phase distribution for beam shaping', Electro Technology Jour. of the Society of Electronic Engineers , Vol.36, No.3,Sept., 1992.

48. 'Multiple Beam Shaping in Array using phase only control', ASTEM-92 conference, Xian, China, Oct., 1992.
49. 'Millimeter Wave Twist Reflector Antenna Design Aspects', IEEE Trans. on Antennas and Propagation, Vol.40, No.11, Nov.,1992, pp.1423-1426.
50. 'Design of an Efficient Monopulse Feed for Millimeter Wave Twist Reflector Scanning Antenna System', Proc. of National Symposium on Advances in Microwaves, March 1-2,1993, Univ. of Delhi, pp.49-54.
51. 'Cascaded Discontinuities in the centre conductor of Microstrip line', Proc. of National Symposium on Advances in Microwaves, March 1-2, 1993, Univ. of Delhi.
52. 'Reflected fields from twist reflector in twist reflector scanning antenna configuration', IEE, Electronics Letters, Vol.29, No.16, August 1993, pp.1397-1398.
53. 'Cosecant pattern of arrays by adaptive phase weights', Proc. of the 3<sup>rd</sup> Int. Symp. on Antennas and E.M. Theory Sept. 6-9, 1993, Nanjing, South east Univ., China.
54. 'Adaptive Beam Control on Phased Arrays by phase only technique', Proc. of the 4<sup>th</sup> Int. Symp. on Recent Advances in Microwave Technology, Dec.15-18,1993,(ISRAMT-93) Delhi, pp. 470-473.
55. 'Characterization of small Apertures in the center conductor of a Microstrip line', IEEE Trans. on Microwave Theory & Tech., Vol.42, No.5, May 1994, pp.907-910.
56. 'Agriculture & Industrial Application of Microwaves', National Seminar on Electronics for Agriculture & Food Technology, Nov.6-7, 1994, IETE, Hyderabad.
57. 'Analysis of Tapered Microstrip Transmission line having a linearly varying width', National Symp. on Ant & Prop. DOE., Cochin, CUSAT 94, Nov.17-19, 1994.
58. 'Transreflector Paraboloid Distortion effects in twist reflector scanning antenna system', Proc. National Symp. on Ant. & Prop., Dept. of Electronics, Cochin Univ.,Nov.17-19, 1994.
59. 'Characterization of thin transverse slot in a Microstrip line Using Method of Moment', IETE Mid Term Symp. on Microwaves & Millimeter waves Applications & Recent Trends, April 8-9,1995, DEAL, Dehradun.
60. 'Design of Broadband Hybrid Ring Coupler', Proc. of National Symp. on Recent Advances in Microwaves & Lightwaves, Dec.4-6,1995, New Age Int. Pub.,New Delhi, pp.382-393.
61. 'Transmission Matrix Analysis of Cascaded Discontinuities in the Centre Conductor of Microstrip Line', Jour. IETE, Vol.42, No.2, March-April, 1996, pp. 69-75.
62. 'A Millimeter Wave Monopulse Twist Reflector Scanning Antenna System, Theory and Experiment', IETE Journal of Research, Vol.43, No.6, Nov.-Dec.,1997, pp.415-421.
63. 'Equivalent Circuit Model for Planar Microstrip Discontinuities', National Conference on Information and Commn. Technology, J.N.Vyas Univ., Jodhpur, March,1998.

64. 'Thining of Antenna Arrays', National Conference on Information and Commn. Technology, J.N. Vyas., Jodhpur, March, 1998.
65. 'Analysis and Design of Irisfed Microstrip Antenna', Proc. of National Conf. on Electronics, Materials, Devices and Systems (NCEMDS-99), Gulbarga Univ., Jan. 18-20,1999, pp. 347-356.
66. 'Agricultural and Industrial Applications of Microwaves', Proc. of NCEMDS-99, Gulbarga Univ., Jan. 18-20,1999, pp. 357-366.
67. 'Printed Antennas and Arrays', (Review Paper) Proc. of NCEMDS-99, Gulbarga Univ., Jan. 18-19,1999, pp.367-373.
68. 'A Wideband Printed Circuit Balun', co-authored with M. Chakravarthy and R. Shri Hari Rao. Proc. of NCEMDS-99, Gulbarga Univ., Jan. 18-20,1999, pp.313-322.
69. 'Impact of Scientific and Technological Research on Teaching and Learning Process', National Seminar on Scientific and Industrial Research in the Universities Association of Indian Universities , RRL, Bhopal , Sept. 20-21, 1999.
70. 'Effect of finite slot width on Impedance of Microstrip slot radiator', N.V.Koteshwara Rao and Dr. V.M.Pandharipande, Radar Symposium India-99,Dec.14-17,1999, LRDE, Bangalore.
71. 'Composite Elevation Coverage of Phased Array Radar by Phase only Synthesis', A.K. Subramaniyan and Dr.V.M.Pandharipande, Radar Symposium India-99, Dec. 14-17,1999, LRDE, Bangalore.
72. 'Research in Engineering Education, Futuristic Need', Seminar on Supervision of Research in Universities organized by Association of Indian Universities at NIO, GOA on Aug. 17-18,2000.
73. 'Impedance of a displaced slot in the Ground plane of a microstrip line', N.V.Koteswara Rao and Dr.V.M.Pandharipande, Proceedings of National Symposium on Antennas and Propagation , Dec. 6-8, 2000, CUSAT, Cochin , pp.144-147.
74. 'Planar Tripole Adaptive Array', Proc. of National Symp. on Antennas and Propagation , Dec.6-8,2000, CUSAT, Cochin, pp.292-295.
75. 'Design and Performance of Miniaturized S-Band Circulator', National Symposium on Advances in Electronics ELECTRO-2001, Jan. 4-6, 2001, BHU, Varanasi.
76. 'Twist Reflector Evaluation using Network Analyser', IETE Tech. Rev., Special Issue on Microwave Communication Systems, Vol.18, No.2&3, March & June 2001, pp.131-138.
77. 'Bow Tie Microstrip Patch Antenna', Dr.V.M.Pandharipande and V.Sarala, National Symposium on Microwave Measurement Techniques and Applications, Feb.4-6, 2002, School of Envirornental Sciences, Jawaharlal Nehru University, New Delhi.
78. 'Real time quality analysis of Digital Remote Sensing Satellite Signals', RF Design (USA) Journal, March 2003, pp. 14-20.

79. 'Noise Performance Analysis of Long Loop PLL in real time measurement of Received Eb/No and carrier Recovery from PSK Modulated Signals of Remote Sensing Satellites', IETE Tech. Rev., Vol.20, No.5, Sept.-Oct. 2003, pp. 407-414.
80. 'Triangular Permutation Scan Algorithm for Robot Tour Problem', Proc. of the Artificial Neural Networks in Engg. Conference (ANNIE 2003), Nov. 2-5,2003, Missouri, USA, ASME Press N.Y., Vol.13 , pp. 361-366.
81. 'Continuous Measurement and Monitoring of Eb/No Ratio Received during a Remote Sensing Satellite Pass at a Multi Mission Ground Station', IEEE TENCON -2003 Conference Proc.,Vol.4, Bangalore ,Oct 14-17,2003, pp. 1429-1434.
82. 'Analysis and Implementation of carrier Recovery Process in a Multimission Remote Sensing Satellite Ground Station', R.F. Design USA, July 2003, pp. 52-64.
83. 'Real Time Measurement of Eb/No Ratio received from the Satellite: Mathematical Analysis and Practical Implementation', Journal of Space craft Technology, Vol.14, No.2, July 2004, pp. 5-17.
84. 'Coherent Carrier Regeneration from Digitally Modulated PSK Signals', Microwaves and RF USA, August 2004.
85. 'Poly semantic binary pulse compression radar sequences', IEEE TENCON 2003, IEEE Tech. Conf. on Convergent technologies for Asia Pacific.
86. 'Equilength poly alphabetic sequence design', International Radar Symp., IRSI 2003, Bangalore.
87. 'Second order problems in Poly-alphabetic Radar', Proc. IEEE ACE 2003, Conference on Emerging Technology Trends, Pune 12-13, Dec. 2003.
88. 'Compact Circularly Polarized Microstrip Planar Array', Proc. of National Conf. on Microwaves and Optoelectronics, Aurangabad, June 2004, pp.190-196.
89. 'On correction procedure for the resonant frequencies of equilateral triangle Microstrip patch antenna', Proc. of National Conf. on Microwaves & Optoelectronics, Aurangabad, June 2004, pp.185-189.
90. 'Microstrip Printed Patch Radiators', Proc. of National Conf. on Microwaves and Optoelectronics, Invited Talk , June 2004, pp.141-150.
91. 'Generalized Gray Codes', International Symposium on Intelligent Signal processing and Communication Systems, Nov. 18-19, 2004, Seoul , Korea, pp. 654-659.
92. 'A unique method for the real time assessment of data reception quality in a multimission Remote Sensing Satellite Ground Station', 2<sup>nd</sup> Int. Conf. on Microwaves, Antennas, Propagation and Remote sensing, Nov.23-25, 2004, Jodhpur (Selected as best paper).
93. 'New Figures of Merit for Poly alphabetic Radar Signal Design', Proc. Int. Conf. on Microwaves, Antennas, Propagation and Remote Sensing, Nov.23-25, 2004, Jodhpur.

94. 'Graphical User Interface (GUI) – Adaptive Arrays', National Symp. on Antennas and Propagation, AP SYM., Dec. 2004, Cochin Univ. of Science & Tech., Cochin, pp.284-287.
95. 'Design and Development of Stripline Directional Coupler for RF and Microwave Communication System', Proc. International Conference on Bio Medical Electronics & Telecommunications, Dec. 9-10, 2004, Andhra University, Vishakhapatnam.
96. 'Regenerate Coherent Carriers from PSK signals', Microwaves & RF Journal USA, Dec., 2004, pp. 52-68.
97. 'A 18 GHz Coplanar Waveguide MEMS Shunt Switch', National Symp. on Antennas and Propagation, 21-23 Dec. 2004, Cochin Univ. of Science & Tech., Cochin, pp. 243-248.
98. 'Gray code sequence generation as a test problem for solving TSPP instance in DNA array design', Proc. of Enabling Technologies for Smart Appliances, Jan. 2005, International IEEE Conf.
99. 'Teaching Learning Process in Electronics Education', IETE Tech. Rev. Special Issue, Vol.22, No.1, Jan.-Feb.,2005.
100. 'Monitoring of outgoing Power from Antenna by design and development of Stripline Directional Coupler', International Conf. on Antenna Technologies (ICAT-2005), Feb. 23-24, 2005, Space Application Centre, ISRO, Ahmedabad.
101. Analysis and Implementation of the long loop PLL Method for Real Time Measurement of Eb/No Ratio "IETE Journal of Research Vol. 51, No.3, May – June, 2005, pp. 245 – 256
102. "Design and Optimization of Phase Shifter by through sensitivity analysis" Indian Conf. of Microwave, Antenna, Propagation and Remote Sensing, 20 – 22 December, 2005, International Centre for Radio Science, Jodhpur.
103. "A 9 – 10 GHz MEMS Phase Shifter" International Radar Symposium, IRSI 2005, 19 – 22 December, 2005, Indian Institute of Science, Bangalore
104. "Broadband Dual Polarized Micro strip Antenna" Indian Conference on Microwaves, Antennas, Propagation and Remote Sensing" Centre for Radio Science, Jodhpur, December, 2005
105. "Analysis and Design of Equilateral Triangular Microstrip patch Antenna with Micro strip Feed" IETE Journal of Research, Vol. 52, No. 1, January – February, 2006
106. "Guest Editorial Special Issue on Electronics Engineering Education – 2020", IETE Tech. Rev. Vol. 22, No.1, Jan – Feb 2005, pp. 2-3.
107. "Amplitude Phase Keyed equi-length Poly Alphabetic Radar Waveform Design" International Conference on Radar Systems, 2005, Indian Institute of Science, Bangalore, December, 2005
108. "Computer Aided Radome Analysis for Airborne Antenna System" National Conference on Antennas, Propagation and Remote Sensing, Jodhpur, December, 2005

109. "Mutual Coupling between the Micro strip slots in the Ground Plane of a Micro strip Line" "National Conference on Antennas, Propagation and Remote Sensing International Centre for 'Radio Science'", Jodhpur, December, 2005
110. "Universal Radar Interface Design" National Conference on Antennas, Propagation and Remote Sensing, International Centre for Radio Science, Jodhpur, 20-22 December, 2005
111. "Dual Diversity Smart Antenna Using Maximum Bit Error rate Proceeding" TSYGECE – 06, Technical Symposium Govt. Engineering College, Aurangabad, 23-24 January, 2006
112. "Studies on offset Microstrip Slot Radiator" National Conference on Communication, Control and Bio-Informatics, NCCB – 06, Govt. Engineering College, Kota Rajasthan, March 8-10, 2006
113. "Polarization Diversity Tribpole Adaptive Array with minimum bit error approach" 2<sup>nd</sup> International Workshop on Satellite and Space Communication, 14-16 September, 2006, Madrid, Spain
114. "A Printed Wideband Manopole antenna for Wireless Communication" 3<sup>rd</sup> International Conference on Microwave Antennas, Propagation and Remote Sensing, International Centre for Radio Science Jodhpur, 18-22 December, 2006
115. Studies on Reconfigurable antennas – Patch Antennas – with switchable slots, 3<sup>rd</sup> International Conference on Microwave, Antennas, Propagation and Remote Sensing, International Centre for Radio Science, Jodhpur 18-22 December, 2006
116. Studies on Mutual Coupling between Microstrip Slot radiators- National Conference on Recent Advances in Microwave Techniques and Applications, University of Rajasthan, Malviya National Institute of Technology, Jaipur, October 6-8, 2006
117. Mutual coupling study on meander line antenna elements for use in active phased array. Microwave and optical Technology letter, Willey Periodicals Inc USA Vol 49, Issue 4, April 2007, PP 745-749
118. Polarization Diversity Smart Antenna with Triple COLD array using Genetic Algorithm' International Symp. on Antennas and Propagation, 20-24 August 2007, Niggata, Japan.
119. Genetic Algorithm assisted Dual Diversity Smart Antenna with Triple COLD array for QPSK Communication Systems' International Conference on Electromagnetic in Advanced Applications 17-21 Sept. 2007, Torino, Italy.
120. 'International Workshop and Satellite and Space Applications 2007, Dept. of Computer Sciences, 12/09/2007, University of Salzburg, Austria.
121. "Compact planar Microstrip Antenna Element for Wide-Scan Angle Active Phased Arrays" November 2007, Edinburgh, UK

124. Real Valued Minimum Mean Square Error Approach for Polarization Diversity Adaptive Arrays' Asia Pacific Conference on Applied Electromagnetics, 4-6 December 2007, Maleka, Malaysia.
122. Planar Microstrip Antenna Array for Wide-Scan Angle Active Phased Arrays", November 2008, Edinburgh, UK.
124. 'Polarization Sensitive Antennas for Polarization Diversity in Mobile Communication' International Conference on RF and Signal Processing Systems, IEEE Hyderabad Section, 1-2 Feb. 2008, KL College of Engineering, Guntur.
125. 'Cavity backed micro strip antenna element for use inactive phased arrays' International Conference on RF and Signal Processing Systems, IEEE Hyderabad Section, 1-2 Feb. 2008, KL College of Engineering, Guntur.
126. 'Techniques for solving EM boundary value problems – critical review' International Conference on RF and Signal Processing Systems, IEEE Hyderabad Section, 1-2 Feb. 2008, KL College of Engineering, Guntur.
127. Wide Band Wide Beam Antenna Elements for Active Phased Array Applications", IETE Journal Special Issue on Microwave Circuits and systems, March – April – 2008
128. Design of a Corner fed square patch array antenna for X band surveillance Radar with wide bandwidth and lower side lobe. IETE Conf. on RF & Wireless(I con RFW-08) 24-26 April 08, IETE Bangalore
129. R.F. Couplers, Transformers, Filters and Antenna Arrays: Unique Formulation IETE Conf. on RF & Wireless (Icon RFW – 08) 24<sup>th</sup> – 26<sup>th</sup> April 2008, IETE Bangalore
130. "Resonant Microstrip Meander Line Antenna Element for wide Scan Angle Active Phased Array Antenna" Microwave and Optical Technology Letters July 2008, John Wiley Sa Sons Inc. USA (Accepted).
131. Microstrip Antenna Array With Embedded BITE Network", Radar 2008, Sept, 4-5., Adelaide, Australia 2008.
132. "Microstrip offset Slot Radiator and Series fed off set Slot Arrays" IEEE International Symp on Microwaves, 3-6 December 2008, Nimhan's Convention Centre, Bangalore.
133. "Wide band monopole antenna for Wireless Communication" International Conference on Recent Advances in Communication Engineering, RACE 2008, December 21-23, 2008, Dept. of ECE, College of Engineering (Autonomous) Osmania , Hyderabad.
135. Mutual coupling study on Meander line Antenna elements for use in Active Phased Array. – Microwave and optical Technology letters Vol. 49, issue 4, PP 745-749. Feb. 2007
136. Resonant Microstrip meander line antenna element for wide scan angle active Phased array antennas – Microwave and optical tech. letters April 2008 Vol. 50, Issue 7, PP 1737 – 1740

137. “Survivable and protection of Multihop WDM Networks” published in the Journal of optics; August 2009
138. “Transmission characteristics of Linear and Non Linear Fiber Optic Communication published in the Journal of Optics August 2009
139. “Survivable and Protection of multihop WDM Networks against single link failure” IEEE, International Conference “WOCN 2009” in Cairo Egypt from April 28-30, 2009
140. “Design and Development of Pyramidal and planar log-periodic dipole Antenna(1-2 GHZ), IEEE, International Conference at V.R. Siddhartha Engineering College, Vijayawada from 6-7, 2010.
141. AW efficient Voice Over Internet telephone call network model for analyzing the Dynamic behavior of the telephone calls” IEEE, International Conference at VR Siddhartha Engg. College, Vijayawada from 6-7, 2010
142. “Multiple Beam Smart Antenna Array for mobile communication applications” IEEE, International Conference at V.R. Siddhartha Engg. College, Vijayawada from 6-7, 2010.
143. “Design of Broadband Compact and optimally shaped Dual Ridge Horn antenna” IEEE Int. Conf. VR Siddhartha College, Vijayawada from 6-7, Jan 2010
144. “Accurate resource frequency estimation for Equilateral Triangle Microstrip Antenna” at Indian Antenna Week organized by IEEE MTT/AP chapter, UGC-NRCP, and university of Calcutta, held at Pune, India, 31<sup>st</sup> May – 4<sup>th</sup> June 2010.
145. Radar Signal Design for High Resolution Multiple/Distributed Target Detection International Journal of Engineering Science and Technology Vol. 2(8), 2010, pp 2797-3807.

These research publications are co-authored by **Prof. V.M.Pandharipande** with research scholars.

### **List of books authored in Marathi Literature**

#### **Novels:**

1. Andharatlya Savalya
2. Patranjali
3. Ghe Bharari
4. Tokyo Towar Varun
5. Akash Majhya Muthit Aahe
6. Deva Shappath Khare Sangen
7. 1990
8. Sharyat
9. Spot Light
10. Navya Shatakachya Umbarathyavar
11. Satyamev Jayate
12. Spot Light
13. Rutu Ragini
14. Mantarlete Diwas



Short Stories: Paulkhuna

Poems: Muktachhanda

**List of Technical Report:**

1. Microwave Landing System by VM Pandharipande, July 1984.  
ECE/MW/TR/1
2. Design and Synthesis of Time Reference Scanned Beam Arrays for MLS by VM Pandharipande, August 1985.  
ECE/MW/TR/2
3. TSRB MLS Antenna Array Synthesis and Design by VM Pandharipande, Jan 1987.  
ECE/MW/TR/3
4. Board Band Microstrip Antennas by R.Ramesh Babu and VM Pandharipande, May 1987.  
ECE/MW/TR/4
5. Landing Systems – Comparative performance and Evaluation by VM Pandharipande, June, 1987.  
ECE/MW/TR/5
6. Microstrip Fed slot Arrays for Frequency Scanning Applications by N.D.Rama Raju, R.Suresh Babu and VM Pandharipande 1987.  
ECE/MW/TR/6
7. Microstrip Antennas for Biomedical Applications by VM Pandharipande, V.Harikrishna, K.J.Raghunath, April 1988.  
ECE/MW/TR/7
8. Dielectric Covered Patch Antennas and Arrays by VM Pandharipande and Fatima Nahid Farokrooz, April 1988.  
ECE/MW/TR/8
9. Waveguide Slotted Array and Microstrip Patch Array for MLS Antennas by VM Pandharipande and M.A.V. Krishna, June 1988.  
ECE/MW/TR/9
10. The Effect of Missing Elements in TSRB-MLS Arrays by VM Pandharipande and SVN.Padmaja  
ECE/MW/TR/10
15. Coupling Network Using Sub Array Modules for MLS Antenna Arrays by SVN Padmaja and VM Pandharipande, Jan 1989  
ECE/MW/TR/11
16. Modified Hybrid Ring Coupler for MLS Arrays by M.V.K Prasad and VM Pandharipande, Jan 1989.  
ECE/MW/TR/12
17. Microstrip Branch Line Coupler and Patch Antenna Array by VM Pandharipande April 1989.  
ECE/MW/TR/13
18. MLS Scanned Arrays by K.Srinivas Rao, B.Uma Maheshwara Reddy and VM Pandharipande, May 1989.  
ECE/MW/TR/14

19. Strip/Microstrip Components & Antennas for Array Applications (Final Tech. Report) by VM Pandharipande, June 1989.  
ECE/MW/TR/15
20. Equivalent Network for an Aperture in the Centre Conductor of Microstrip Line by K.Srinivas Rao and VM Pandharipande, Nov 1989.  
ECE/MW/TR/16
21. Shaped Beam Beacon Antenna for MLS by SVN Padmaja and VM Pandharipande, Nov, 1989.  
ECE/MW/TR/17
22. Slotted Waveguide Antenna Array design Approach by VM Pandharipande, Nov 1989.  
ECE/MW/TR/18
23. Design and Tolerance Analysis of S-band Waveguide Fed Slotted Arrays by C.D.V. Subramanyam and VM Pandharipande, 1989.  
ECE/MW/TR/19
24. Method of Moment for Electromagnetic Field Problem ( Tech. Review Report) by K.Srinivas Rao and VM Pandharipande, 1989.  
ECE/MW/TR/20
25. A New Synthesis Technique of Shaped Beam Antenna Pattern for MLS by B.Uma Maheshwara Reddy, K.Srinivas Rao and VM Pandharipande, March 1990  
ECE/MW/TR/21
26. Microstrip planar Array with Stripline Feed Network by K.Srinivas Rao and VM Pandharipande, Aug 1990.  
ECE/MW/TR/22
27. Waveguide Fed Aperture Coupler by VM Pandharipande, AVSRK Subramanyam and C.Ramani, Dec 1990.  
ECE/MW/TR/23
28. Analysis of Crossed and Parallel Waveguide Coupler using Method of Moments by VM Pandharipande, AVSRK Subramanyam and C.Ramani, March 1991.  
ECE/MW/TR/24
29. Printed Dipole Antenna Radiator for MLS Elevation Array by VM Pandharipande and P. Ramakrishna, July 1991.  
ECE/MW/TR/25
30. Analysis of Waveguide fed aperture Coupler at X-band (Final Tech, Report) by VM Pandharipande, C.Ramani and AVSRK. Subramanyam, August 1991.  
ECE/MW/TR/26
31. Mm Wave Twist Reflector Scanning Antenna System by VG Borkar and VM Pandharipande 1993.  
ECE/MW/TR/27
32. Printed antennas for Space and Airborne Applications submitted to AICTE 2002-2004
33. Electromagnetic Simulation, Design and Optimization of an Impulse Radiating Antenna submitted RCI , DRDO (4 Technical Reports) 2008-2009  
Technical Report 1 –  
Technical Report 2 –

Technical Report 3 –  
Final Technical Report –

34. “Technical Study on Synthesis and Analysis of Active Array Antennas” LRDE,  
(3 Technical Reports) 2010-2012 (present running project)

Technical Report 1- Planar Phased Array Design and Analysis For Two Radar  
Specifications

Technical Report 2- Digital Beam Forming for Active Phased Array Radar

Technical Report 3- Planar Phased Array Design and Analysis for Two Radar  
Specifications

**List of ME/M.TECH. Thesis Supervised:**

1.	Short Slot Hybrids	VD Deshmukh	1975
2.	Design of Phased Arrays	Lt.NP Mathai	1978
3.	Mm Wave W/G Slotted Arrays & S-band Microstrip arrays for Freq.Scanning Applications.	J Vivekananda	1981
4.	Feed System & Design/Development of Microstrip Antenna & Arrays at X-band.	K.G.Verma	1982
5.	Digital PIN diode Phase Shifters	K Bharath Kumar	1983
6.	Cylindrical Array Antenna for IFF Applications	Parimal Kumar	1985
7.	Synthesis & Design of Array Antennas for MLS	Anuradha	1985
8.	Pattern Shaping in the nonscanned plane for MLS Multipath effects	B Harikumar	1986
9.	Waveguide & Microstrip Aperture Couplers	S.Umamaheshwar Reddy	1986
10.	Microstrip Arrays for Scanning Applications	N D Rama Raju	1987
11.	Coupling & Feed Networks for MLS Arrays	M Ramakanth	1988
12.	Synthesis & Design of Shaped beam Pattern Antennas	MAV Krishna	1988

13.	Circular & Rectangular Patch Antennas	HA Tafti	1988
14.	Dielectric Covered Patch Antennas & Arrays.	Fatima Nahid	1988
15.	Design & Tolerance Analysis of Waveguide fed Slotted Array Antenna	CDV Subramanian	1990
16.	Waveguide Fed Slot Couplers & Slotted Arrays for Frequency Scanned Antenna.	BN Bhandari	1990
17.	Printed Dipole Antenna Arrays	P Ramakrishna	1990
18.	Waveguide Aperture Coupler using Method of Moment.	AVSRK Subramanian	1991
19.	Planar array of Microstrip Patches in X-band	K Srinivas	1991
20.	Stripline Binary 180 Diode Phase Modulator in Ku Band	M Gangadhara	1991
21.	Dual Channel Integrated Receiver front end in X-Band	A Mangatayaru	1991
22.	Computer Aided Design of X-band 3db quadrature Hybrid coupler including junction effects.	K Gayatri	1992
23.	Direction Finding with Circular Arrays	D Sailaja	1994
24.	Yig Tuned Oscillator	Sreemala	1994
25.	Computer aided design of Microstrip Antennas & Arrays	NM Hadke	1995
26.	Development of S-Band Tuner	Gayatri	1995
27.	Design & Development of Dielectric Stabilized Voltage Controlled Oscillator in S-band	Srinivas	1995
28.	Computer Aided Design of MIC's	MA Zaki	1996
29.	Vehicle Monitoring System -Receiver Design.	M.Harnanth	1999

30.	Design and Development of Quarter wave coupled Miniaturized Circulator	T.Rajitha	2000
31.	Adaptive Array Simulation	Y.Ravinder	2000
32.	Design of Triangular Patch Antenna and Arrays	K.Ushakrishi	2001
33.	Analysis of Photonic band gap Structure in Microwstrip line using Conformal mapping	MS Balakrishnan	2003
34.	Design of Wideband patch antennas	K. Shrikanth	2003
35.	Inter digital Round rod narrow band Bandpass filter	K. Ravichandra	2003
36.	4 element Microstrip linear Array	K. Rama Devi	2003
37.	Design of T/R Module	Ahmed Ali	2005
38.	Computer aided Radome Analysis And Design	M. Shwetha	2005
39.	Optical Link between ground Control station and Tracking unit Using VLSI	Kannailal Yadav	2005
40.	Analysis and Design Dual Polarized Microstrip antennas	Ch. Rajesh	2005
41.	Design and Development of Dual Polarized Dual frequency Microwstrip Antenna	T. Radhika	2006
42.	Design of Radar Simulator and Radar Interface	S. Annapurna	2006
43.	Design and Analysis of Broadband and Ultra Wide Band Microstrip Antenna	P. Naveen Kumar	2006
44.	Design Development and Fabrication Of LB and GaAsFET Power Amplifier	K.V. Shiva Ramakrishna	2006
45.	Design and Development of conformal Spiral Antenna	G.Eswaramma	2006

46.	Design of Frequency Synthesizer Module using DDS	KM Shridhar	2006
47.	Design and Development of S Band GoAsFET Low Noise Amplifier	D. Rama Krishna	2006
48.	Design and Development of Dielectric Resonator Oscillator	P. Appa Rao	2006
49.	Design Development and Fabrication Of Microstrip L band Filter for 1 GHz clock source	K. Mohan Rao	2007
50.	Adaptive Feed forward Linearization of power Amplifier	T. Sumalatha	2007
51.	Design, Development and Fabrication Of LBand Microstrip Directional Coupler	T. Venkata Rao	2007
52.	Design and Experimental feature OF Ka Band mm ware Transceiver	J. Sunitha Kumari	2007
53.	Design and Development of Digital RF Analyzer for Power Measurement	D.M.K. Chaitanya	2007
54.	Simulation of Radar Instrumentation for Reflectivity Measurements of Targets in open range.	P.Anil Kumar	2008
55.	Design of 2-20 Hz distributed MMIC Power Amplifier	Ayesha Humera	2008
56.	Modeling of Complex Targets	V.Jyothirmayi	2008
57.	Design and Development of Multiplexer (2-20 GHz)	S.Leeladhitya	2008
58.	Design and Simulation of Ka BAND Transmitter	K.Nalini	2008
59.	Four Beam Antenna Array Fed by Butler Matrix for Mobile Communication Applications	K.Sumalatha	2008
60.	Test and Modeling of W-Band Monopulse Transceiver	N.Veerabhadru	2008
61.	Band Width enhancement of circular patch Antenna using Defected Ground And Defected Micro strip Structures.	S.Vinay kumar	2008

62.	Design of Analog Phase Shifter and Fem Analysis of Constituent Micro strip Lines	D.Vishal	2008
63.	Theoretical modeling and Estimation of Target Scattering Characteristics using physical optics	A.Bhargavi	2009
64.	Multiple Beam smart Antenna Array for Mobile communication Applications	K. Kumara Swamy	2009
65	Broadband Compact Dual Optimally Shaped Ridgse Horn Antenna	K. Suresh	2009
66	Design and Analysis of Phased Array for Radar Applications	R.Swetha	2010
67	Design and Development of Wide band reflector antenna	Shilpa	2010

#### **Ph.D Thesis Supervised:**

1.	Studies on Rectangular Coaxial Line (S.Anand Mohan) (at IIT Kharagpur)	1984
2.	Millimeter Wave Monopulse Twist Reflector Scanning Antenna for Missile Seeker (V.G.Borkar) (at Osmania University)	1993
3.	Characterization of Small Apertures in the Center Conductor of Microstrip Line (K.Srinivasa Rao) (at Osmania University)	1995
4.	Dynamic Beam Shaping in Phased Arrays with Phase only Control (A.K.Subramanian) (at Osmania University)	1996
5.	Poly-Alphabetic Radar Signal Design (I.A.Pasha) (at Osmania University)	2004
6.	Developments of Algorithms for a Certain Combinational Optimization Problem (K.Jaya Shankar) (at Osmania University)	2004
7.	Data Quality Analysis of the Digitally Modulated Suppressed Carrier Signals in Real Time Data Reception from Remote Sensing Satellites(P.K.Jain) (at Osmania University)	2005

8. Studies on Microstrip Transverse Slots and Wide Band Microstrip Patch Antennas - (N.V. Koteswara Rao) 2006
9. Polarization Diversity Smart Antennas with Genetic Algorithm (Y. Ravinder) 2008
10. Studies on Active Phased Array Antenna Elements – (K.S. Beenamole) 2009
11. Analysis and Design of Broadband Microstrip Scanned Arrays (Ms. Sarala) 2010

### **Research Projects**

	<b>Title of the Project</b>	<b>Sponsoring Authority</b>	<b>Funds Received</b>	<b>Duration</b>	<b>Position held</b>
1.	Strip/Microstrip Components and Antennas for Array Applications	CSIR	5.73 lakhs	2Yrs	Chief Investigator
2.	Feed System for Slotted Array Antenna for Microwave Remote Sensing	SAC Ahem'bad	0.25 lakhs	1Yr.	Chief Investigator
3.	Feasibility studies on wave-guide Slotted Arrays	ASWAC DRDO	0.10 lakhs	1Yr.	Chief Investigator
4.	Microwaves & Signal Processing	Min. HRD New Delhi	15.00 lakhs	2Yrs.	Project Director
5.	Waveguide Aperture Coupler	LRDE B'lore.	1.99 lakhs	2Yrs.	Chief Investigator
6.	MLS Antennas for Navigation	Dept. of Electronics	10.00 lakhs	10Yrs.	Chief Investigator
7.	Computer Aided Design of Microwave Integrated Circuits.	AICTE Min.HRD	10.00 lakhs	2Yrs.	Chief Investigator
8.	Electronics Industry Development Project-IMPACT	Dept. of Electronics World Bank, Swiss Development Co-operation	2.0 crores	5Yrs.	Coordinator



9.	Printed Antennas for Air borne & Satellite Applications	AICTE	5 lakhs	2Yrs.	Chief Investigator
10.	Research & Training in Microwave Engg.	DST	30 lakhs	5Yrs. (On going)	Chief Investigator
11	Compact Micro strip Array for Mobile Communications	Astra Microwaves Pvt. Ltd.	0.5 Lakhs	3 Months	Chief Investigator
12.	Centre for Excellence In Microwave Engg.,	Astra Microwaves	50 lakhs per year	3 years wef 2006	Director
13	“Electromagnetic Simulation Design and Optimization of an Impulse Radiating Antenna”	RCI	4.73 lakhs	1 year	Chief Investigator
14.	“Technical Study Synthesis and Analysis of Active Array Antennas”	LRDE	9.00 lakhs	2 years	Chief Investigator

#### **Courses Organized and Coordinated**

	<b>Courses Title</b>	<b>Period</b>	<b>Venue</b>	<b>For</b>
1.	Intensive Course on Microwave Circuits – Analysis, Synthesis and Design.	Jan,89	Dept. of ECE	Scientists, Academicians, Engineers
2.	Short Term Course on Electronically Scanned Arrays for Radar & Communication.	Aug,89	Dept. of ECE	Scientists, Academicians, Engineers
3.	Short Term Course on Microwave Techniques	2-8 Nov.93	Dept. of ECE	Scientists, Academicians, Engineers
4.	Selected topics in Radar and Microwave Commn. Systems	6-10 June, 94	Research Centre IMARAT, DRDO	DRDO Scientists
5.	Short Term Course on Microwave Circuits and Devices (computer aided design)	20-25 Feb.95	Dept of ECE	Scientists, Faculty Engineers.
6.	Executive Course on Emerging Trends and Techniques in Radar Systems	Aug 30-2 Sept 95.	IETE CASET	DRDO Scientists
7.	Intensive Course on Antenna Theory and Techniques	11-14 Aug 97	SAC Ahemadabad	ISRO Scientists.

8	Intensive Course on ‘Microwave Integrated Circuits’	Mar.-Apr. 2000	GAETEC RCI, Hyd.	GAETEC Scientists.
9.	Object Oriented workshop for Engg. College teachers.	May 2001	Vishweshwarayya Inst. of Engg.& Tech. Mahaboobnagar.	College Teachers
10..	‘Accreditation Procedure and	December 2005	Bharat Institute of Engineering & Tech. Ibrahimpatnam,Hyd	College Teachers, Engineers
11.	‘Teaching Learning Practice”	July 2006	University College of Engineering, Osmania University	College Teachers
12.	Recent Trends in Microwave Engg	October 2006	Dept. of ECE,OU	College Teachers, Engineers, Scientists
13.	Phased Arrays for Radar and Satellite Applications	September 2007	International Workshop on Satellite and Space applications Selzburg, Austria	Engineers & Scientists
14.	Intensive Course on Microwave Measurements	October 2007	Dept. of ECE	Scientists Engineers, Teachers
15.	Intensive Course on Smart Antennas	August 2008	Dept. of ECE	R&D Teachers, Engineers, Scientists
16.	‘Microwave Workshop’	November 18 <sup>th</sup> 2008	CEME, Dept. of ECE, OU, & IEEE MTT/ AP/EMC Joint Chapter Hyderabad.	R&D Teachers, Engineers, Scientists
17.	‘ Defense Electronics Systems’	September 12 <sup>th</sup> 2009	CEME Dept, Dept. of ECE,OU	Teachers Students

#### Workshops/Invited Talks

<b>Title</b>	<b>Venue</b>	<b>Date</b>	<b>No. of Man Hours</b>
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1. Workshop on Object Oriented Planning to improve learning Environment in Electronics.	CBIT Gandipet	17.8.96.	40
2. - do -	RVR & JC College of Engg Guntur	20.7.97	60
3. Interactive Orientation Wokshop For Engg College (A) teachers	U.C.E (A) OU	27.9.97	80
4. Workshop on Professionalism and Quality of Teaching learning Process.	For Engg. College Teachers of JNTU Affiliated Colleges ISTE AP Section & JNTU	21.10.98	120
5. Interactive workshop for SWOT Analysis. Preparation of course Files, Lab. Manuals etc.	Univ. College of Engg.(A) Teachers Org. by CDAAC	24.10.98	39
6. Workshop on Quality of Teach. Education & Teaching Methodology	Technical Teachers Training Institute Govt. of India, Min of HRD Extn Centre, Hyderabad.	27.10.98	48
7. Workshop on Advanced commn. Systems & Applications-Lecture Title – “Modern Defence Radars & Microwave Applications”	B.N. College of Engg.PUSAD (MS)	24.12.98	100
8. Invited Talk on 'Electronic Scanning Techniques in Defence Radar Systems' National Conference on Electronics Materials & Systems.	Gulbarga University	19.1.99	75
9. ZOPP Workshop for Electronics Stream.	B.N.College of Engg. Pusad (MS)	14.8.99	245
10. ZOPP Workshop for Electronics Stream.	Vasavi College of Engg.	25.9.99	
11. Workshop for Academic Consultants	UCE, OU	July 2006	160
12. Workshop on	VBIT, Ghatkesar	Nov. 2006	300

“Effective Teaching Techniques”

13. Orientation Programme for Astra Engineers	Astra Microwaves	23/07/08	
14. Microwave Techniques	At Aurora College of Engineering Chandrayanagutta	01/01/09	
15. Modern Defense Radar System”	National Conference ICET 09, Madurai	27/02/09	120
16. Phased Array Antenna	PICT, PUNE	07/03/09	150
17. Refresher Course for faculty Members	Academic Staff College, OU	16/03/09	80
18. Rain Shadow Area Division	J.N.T.U. Kukatpally	2/04/2009	
19. SONNET High Frequency Electromagnetic Software	JC Lab, Dept of ECE	08/04/09	25
20. Electronically Scanned Arrays And Smart Antennas	School of EEE, NUT, Singapore		30
21. RF Circuit Design I Course	Astra Microwave Product Ltd		52
22. Planning and Organisation of Research Projects	Nalla Malla Reddy College of Engg & Tech. Uppal Road, Hyd : ( 14.30 – 16.30hrs)	Dt:5/2/2010	60
23. Preliminary Design Review Meeting for Project Integrated Adaptive Microwaves Antenna Array System funded by National Aeronautics Ltd (NAL) Bangalore	At Unit III Astra	Dt: 16/02/2010	
24. Meeting of IEEE MTTAP chapter –sub committee was held in CEME on 25 <sup>th</sup> March 2010. Dr. V.P. Kodali chaired. Various proposals for students exhibits in the field of RF / Microwave Engineering with simple demonstration kits were discussed. Members agreed for the following concepts.			
1. Wave transmission/propagation on line concept of reflection			
2. Electronic Scanning , Beam steering concept (Radiation/Radar)			
3. Polarization (Mobile Phone Signal)			
25. 1. Poles and Zeros in Networks system	Dept. of Avionics, , IISCT	Dt: 12,13 <sup>th</sup> April 2010	240 Man hrs 60
2. Introduction to Phased Array antenna For Satellite Communication	Trivandrum		

- |     |  |  |                                  |                   |
|-----|--|--|----------------------------------|-------------------|
| 26. | Design and Development of L Band Phased Array Radar with Active T/R Module. The Project is headed by Mr. Satyanarayana, Head RF Division | RF Division of Vikram Sarabhjai Space Centre, ISRO Trivandrum              | Dt: 12/04/2010                   | -                 |
|     | Various issues in Antenna Array Design Were discussed and Solutions suggested  |  |                                  |                   |
| 27. | Planning and Organization Research Projects  | Academic Staff College, OU   | Dt:10/08/2010                    | 72 Man hours      |
| 28. | “Microwaves in Electronics Warfare Systems”  | Scientists of DLRL, Hyderabad  | Dt: 19 <sup>th</sup> August 2010 | 39 Man hours      |
| 29. | “HF/Microwave Circuit Design”  | Amal Jyothi College of Engineering and Tech. Kanjarpally, Kottayam, Kerala | 1,2,3 Sept. 2010                 | 30 Manhours<br>90 |